

TEST REPORT

Product Name : Network Video Recorder
Model Number : FN8108W, FN9108W, FNA108W, FN8108W-B4,
FN9108W-B4, FNA108W-B4
FCC ID : ZDEFN8108W

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1. TEST RESULT CERTIFICATION

Applicant : ShenZhen Foscam Intelligent Technology Co., Ltd.

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EUT : Network Video Recorder

Model Name : FN8108W, FN9108W, FNA108W, FN8108W-B4, FN9108W-B4, FNA108W-B4

Trademark : FOSCAM

Measurement Procedure Used:

APPLICABLE STANDARDS	
STANDARD	TEST RESULT
§ 15.247(i), § 2.1093	PASS

The above equipment was tested by EMTEK(DONGGUAN) CO., LTD. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2013) and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules FCC § 15.247(i), § 2.1093.

The test results of this report relate only to the tested sample identified in this report

Date of Test : June 07, 2024 to August 30, 2024

Prepared by : 

Warren Deng /Editor

Reviewer : 

Tim Dong /Supervisor

Approve & Authorized Signer : 

Sam Lv / Manager

Modified History

Version	Report No.	Revision Date	Summary
	EDG2406070166E00902R	/	Original Report



2. EUT Specification

Characteristics	Description
Product:	Network Video Recorder
Model Number:	FN8108W, FN9108W, FNA108W, FN8108W-B4, FN9108W-B4, FNA108W-B4 (The Model: FN8108W is the same as the Model: FN9108W, FNA108W, FN8108W-B4, FN9108W-B4 and FNA108W-B4 in hardware aspect. The difference in model number serves as marketing strategy.)
Sample:	1#
Data Rate:	DSSS with DBPSK/DQPSK/CCK for 802.11b; OFDM with BPSK/QPSK/16QAM/64QAM for 802.11g/n;
Modulation:	DSSS, OFDM
Operating Frequency Range(s) :	2412-2462MHz for 802.11b/g/n(HT20)/ax(HE20);
Transmit Power Max:	16.22 dBm(0.041879 W)
Antenna Gain:	4.77 dBi
Power supply:	DC 12V 2A from Adapter
Evaluation applied:	☒ MPE Evaluation ☐ SAR Evaluation

3. Test Requirement:

RF EXPOSURE EVALUATION

According to §15.247(i) and §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances* ≤ 50 mm are determined by:

$$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f_{(\text{GHz})}}] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR,}^{24} \text{ where}$$

- $f_{(\text{GHz})}$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation²⁵
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

The test exclusions are applicable only when the minimum *test separation distance* is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum *test separation distance* is < 5 mm, a distance of 5 mm according to 5) in section 4.1 is applied to determine SAR test exclusion.

Routine SAR evaluation refers to that specifically required by § 2.1093, using measurements or computer simulation. When routine SAR evaluation is not required, portable transmitters with output power greater than the applicable low threshold require SAR evaluation to qualify for TCB approval. One antenna is available for the EUT. The minimum separation distance is 5mm.

4. Measurement Result

gain:	4.77 dBi	WIFI 2.4G FCC EMF							
Mode	Frequen cy (MHz)	Output Power (dBm)	E.I.R.P(d Bm)	Target Power W/toleran ce (dBm)	Max tune up power(dB m) tolerance	Max tuneup power(m W) tolerance	Power Density at R=20cm (mW/cm2)	Limit (mW/c m2)	Verdict
802.11b	2412	16.14	20.91	20±1	21	125.89	0.075115	1	PASS
	2437	16.22	20.99	20±1	21	125.89	0.075115	1	PASS
	2462	15.88	20.65	20±1	21	125.89	0.075115	1	PASS
802.11g	2412	14.65	19.42	19±1	20	100.00	0.059666	1	PASS
	2437	14.89	19.66	19±1	20	100.00	0.059666	1	PASS
	2462	14.52	19.29	19±1	20	100.00	0.059666	1	PASS
802.11n(HT 20)	2412	14.75	19.52	19±1	20	100.00	0.059666	1	PASS
	2437	14.92	19.69	19±1	20	100.00	0.059666	1	PASS
	2462	14.48	19.25	19±1	20	100.00	0.059666	1	PASS
802.11ax(H E20)	2412	14.66	19.43	19±1	20	100.00	0.059666	1	PASS
	2437	14.84	19.61	19±1	20	100.00	0.059666	1	PASS
	2462	14.59	19.36	19±1	20	100.00	0.059666	1	PASS

According to KDB 447498, no stand-alone required for WIFI antenna, and no simultaneous SAR measurement is required.

*** End of Report ***